

Remarks

Allowance of all claims is respectfully requested. Claims 1 & 4-72 remain pending. Applicants gratefully acknowledge the indication of allowance of claims 8-11, 22, 30-33, 44, 56-59 & 70. However, all claims are believed to be in condition for allowance for the reasons stated herein below.

37 C.F.R. §1.83(a):

Initially, the final Office Action presents a drawing objection relative to Applicants' independent claim language which recites that the "ordered list is ordered specifically for said client node based on one or more characteristics of said client node". The final Office Action alleges that this aspect of Applicants' invention is not shown in the drawing figures presented. Thus conclusion is respectfully traversed since this aspect is depicted in Applicants' FIG. 24 of the application as filed.

Page 8, lines 5-9 of the application specify that "FIG. 24 depicts another embodiment of the logic used to produce an ordered list of addresses to be used by a particular node in a cluster to reach a specific service, in accordance with an aspect of the present invention." The figure is described further at page 62, line 11 through page 64, line 21. Applicants respectfully submit that one of ordinary skill in the art would clearly understand that FIG. 24 presents one process embodiment for producing an ordered list ordered specifically for the client node based on one or more characteristics of the client node. For example, page 62, lines 23-27 specify:

The output is an ordered list of service addresses, which is tailored for the specific node which is identified by the unique node number. This list is ordered accordingly to minimal cost and uses load balancing for equidistant servers.

Because Applicants do in fact depict a process in FIG. 24 that produces a list ordered specifically for the client node based on one or more characteristics of the client node, Applicants request withdrawal of the drawings objection presented in the Office Action.

35 U.S.C. §112:

The final Office Action also presents a 35 U.S.C. §112, first paragraph, rejection to claims 1, 18, 25, 40, 47, 48, 51 & 66 as allegedly failing to comply with the written description requirements. This rejection is respectfully, but most strenuously, traversed and withdrawal thereof is requested.

A decision of whether an invention has been sufficiently enabled requires determination of “whether one reasonably skilled in the art could make or use the invention from disclosures in the patent coupled with information known in the art without undue experimentation.” United States v. Teletronics, Inc., 827 F.2d 778, 785; 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988). Further, a patent need not teach, and preferably omits, what is well known in the art. In re Buchner, 929 F.2d 660, 661; 18 U.S.P.Q.2d 1331, 1332 (Fed. Cir. 1991); Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384; 231 U.S.P.Q. 81, 94 (Fed. Cir. 1986), *cert. Denied*; 480 U.S. 947 (1987); and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1463; 221 U.S.P.Q.2d 481, 489 (Fed. Cir. 1984).

If a statement of utility in the specification contains within it a connotation of how to use, and/or the art recognizes that standard modes of administration are known and contemplated, 35 U.S.C. §112 is satisfied (emphasis added). In re Johnson, 282 F.2d 370, 373; 127 U.S.P.Q. 216, 219 (CCPA 1960); In re Hitchings, 342 F.2d 80, 87; 144 U.S.P.Q. 637, 643 (CCPA 1965); and In re Brana, 51 F.2d 1560, 1566; 34 U.S.P.Q.2d 1437, 1441 (Fed. Cir. 1993).

Moreover, the Manual of Patent Examining Procedure (MPEP) §2164.04 states:

[A] specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. §112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.

Applicants respectfully submit that both judicial decisions and the MPEP are counter to the Examiner's position with respect to the adequacy of the disclosure of the present invention. Further, the Examiner has not shown a reasonable basis for questioning the adequacy of the disclosure to enable a person of ordinary skill in the art to make and use the claimed invention. The specification is in compliance with the enablement requirement of 35 U.S.C. §112, first paragraph, since the specification discloses logic for producing an ordered list of addresses to be used by a particular node which is based on one or more characteristics of that node.

Page 62, lines 11-27 of the specification state:

One embodiment of the logic used to produce an ordered list of addresses to be used by a particular node in the cluster to reach a specific service, is described with reference to FIG. 24. In one example, the input parameters for this technique include a list of addresses for a specific service; the node number of the node, which is to be the client for the specific service; the addresses for any communication interfaces (node addresses) present on that node; and the distance of the node from each of the other servers, in terms of the number of hops. It should be noted that this parameter can be estimated using standard IP trace route facilities.

The output is an ordered list of service addresses, which is tailored for the specific node which is identified by the unique node number. This list is ordered according to minimal cost and uses load balancing for equidistant servers.

FIG. 24 is further described at pages 63 & 64, and a detailed example of the procedure of FIG. 24 is presented at page 64, line 22 through page 66, line 19.

Thus, since the specification discloses a process for producing an ordered list ordered specifically for a client node based on one or more characteristics of the client node (e.g., node number of the node, distance of the node to servers, etc.), Applicants submit that the specification discloses the invention in terms which correspond in scope to those used in defining the subject matter sought to be patented.

Therefore, Applicants respectfully submit that one of ordinary skill in the art could make and use the claimed invention from the disclosure in the specification, and that the pending claim language is fully supported by the application as filed. Applicants submit that the adequacy of

disclosure of the present invention is supported by both judicial decisions and the MPEP, as well as the level of understanding of a person of ordinary skill in the art. Should the Examiner request, Applicants can submit one or more declarations by persons skilled in the art in support of the patentability of the invention addressing the alleged enablement issue raised by the Examiner in the final Office Action. Based on the foregoing, reconsideration and withdrawal of the 35 U.S.C. §112, first paragraph, rejection to claims 1, 18, 25, 40, 47, 48, 51 & 66 is respectfully requested.

35 U.S.C. §103(a):

In the Office Action, claims 1, 4-7, 12-21, 23-29, 34-43, 45-55, 60-69 & 71-72 were rejected under 35 U.S.C. §103(a) as being unpatentable over Christensen et al. (U.S. Patent No. 6,330,605 B1; hereinafter Christensen) in view of Freund (U.S. Patent No. 5,987,611 A; hereinafter Freund). This rejection is respectfully, but most strenuously, traversed and reconsideration thereof is requested.

Applicants request reconsideration and withdrawal of the obviousness rejection on the following grounds: (1) the final Office Action has misinterpreted the teachings of the Freund patent, thus voiding the basis for the rejection; (2) the combination of documents fails to disclose Applicants' claimed invention; (3) the documents themselves lack any teaching, suggestion or incentive for their further modification as necessary to achieve Applicants' recited invention; and (4) the combination, to the extent characterized in the Office Action, is a hindsight reconstruction of the claimed invention using Applicants' own disclosed subject matter.

Applicants' invention is directed, in one aspect, to providing ordered lists of service addresses to client nodes to enable those client nodes to access a service associated with those service addresses. Each ordered list is specifically ordered for a particular client node based on one or more characteristics of that client node. Thus, different client nodes are given differing ordered lists to diversify how the client nodes access the particular service. This provides load balancing among various client nodes.

As one example, Applicants claim a method of providing ordered lists of service addresses (see claim 1). This method includes: creating an ordered list of service addresses to be used by a client node of a computing environment to reach a service of the computing environment, the creating using a predefined equation to order a plurality of service addresses having the same ordering criterion, the predefined equation balancing use of the plurality of service addresses among the client node and at least one other client node of the computing environment; and using the ordered list by the client node to reach the service, wherein the ordered list is ordered specifically for the client node based on one or more characteristics of the client node. Thus, in Applicants' claimed invention, an ordered list of service addresses is created for use by a client node and that ordered list is created in such a way as to balance the use of service addresses among different client nodes. The ordered list of service addresses is created for a particular client node and is specifically ordered for that client node based on one or more characteristics of the client node. Applicants respectfully submit that this processing is not taught or suggested by Christensen and Freund, either alone or in combination.

Christensen describes a proxy cache cluster (PCC) which couples to a service provider of a communications network to increase the availability of services offered by the provider to clients connected to the network. The clients access the services by issuing requests to network addresses associated with these services. The PCC increases the availability of the services by receiving and servicing those requests on behalf of the service provider in accordance with a proxy cache clustering technique. (See Abstract.)

In Christensen, a plurality of processor/memory mechanisms (PMMs) are adapted to cooperatively interact in order to receive and service requests on behalf of the service provider. The method includes balancing the service addresses among PMMs by assigning selected service addresses to each PMM of the PCC (see claim 1 of Christensen). In claim 21, Christensen further recites that the balancing includes summing the load ratings of the hosted PCC services; calculating the load rating per address for each hosted PCC service; creating an address list that is sorted, in descending order, by the calculated load rating per address; summing the capacity ratings of the PMMs; and calculating a current capacity rating of each PMM normalized to a common load unit metric. Thus, in Christensen, there is a balancing of servicing of requests

between the plurality of processor/memory mechanisms, which includes organizing the PMMs as one or more proxy cache clusters (PPCs) and then balancing the service addresses among the PMMs by assigning selected service addresses to each PMM of the PCC. This balancing includes creating an address list that is sorted by the calculated load rating per address for each hosted PCC service.

Initially, Applicants respectfully traverse the characterizations of the teachings of Christensen stated in the final Office Action.

To the extent relevant, Christensen describes a method of increasing availability of services offered by a service provider to clients connected to a communications network which includes balancing among a plurality of processor/memory mechanisms the processing of requests on behalf of the service provider. This balancing includes organizing the PMM as one or more proxy cache clusters and then balancing the service addresses among the PMMs by assigning selected services addresses to each PMM of the PCC. During this balancing, an address list is created based on the addresses for each hosted PCC service. Thus, Applicants respectfully submit that Christensen is not even teaching Applicants' recited functionality of creating an ordered list of service addresses to be used by a client node of a computing environment to reach a service of a computing environment. The list in Christensen is used at the service end of the network for balancing the load by the service provider.

Further, and without acquiescing to the further characterizations of Christensen stated at page 4 of the final Office Action, Applicants note that the final Office Action acknowledges that Christensen does not teach Applicants' recited characterization that the ordered lists of service addresses is ordered specifically for the client node based on one or more characteristics of that client node. Applicants agree. However, the final Office Action next alleges that Freund overcomes this deficiency of Christensen when applied against the independent claims presented. This conclusion is respectfully traversed. At page 5, lines 5-10, the final Office Action alleges:

Freund teaches wherein a list is ordered specifically for said client node based on one or more characteristics of said client node. (See Abstract: "Access rules can be defined by ... a list of URLs (or WAN addresses) that a user application can (or cannot) use" and "the system can determine if a particular process in question should have access to the Internet and

what kind of access ... Internet address ... is permissible for the given specific user”).

Applicants respectfully submit that the cited lines from the abstract of Freund simply do not teach or suggest the recited functionality at issue in their independent claims.

Freund does not teach or suggest creating an ordered list of service addresses for a particular client node in which the list is created for that node based on one or more characteristics of that node. Instead, Freund proposes creating access rules for a particular application running on a node. Thus, to the extent that Freund discusses a list, the list is based on user or application characteristics, as opposed to any client node characteristics such as recited in the functionality of Applicants’ invention.

To further explain, Freund describes a system for managing internet access on a per application or per user basis. That is, the rules of Freund are created to govern what a particular user is allowed to access. This is explicitly and repeatedly stated in Freund. For example, in the Abstract, it is stated:

Access rules which can be defined can specify criteria such as total time a **user** can be connected to the Internet ..., time a **user** can interactively use the Internet ..., a list of applications or application versions that a **user** can or cannot use in order to access the Internet, a list of URLs (or WAN addresses) that a **user application** can (or cannot) access, a list of protocols or protocol components ... that a **user application** can or cannot use, and rules to determine what events should be logged ... (emphasis added).

Freund goes on further to state: “With this information, the system can determine if a particular process in question should have access to the Internet and what kind of access ... is permissible for the given specific user.” Thus, Freund specifically describes managing Internet access on a per application or per user basis. As is understood in the art, a node may be running one or more applications at a given time. Thus, there is not a one-to-one correlation between a per application analysis and a per node characterization such as recited by Applicants. Each access rule in Freund is based on what a particular user is allowed to do, and is not based on the characteristics of the node running the application. For instance, the geographic location of the node running the application is not taken into consideration in creating the access list in Freund. Instead, the rules are based on the identity of the user.

Still further, Applicants respectfully submit that the mention of a list of URLs or addresses is not a teaching of their recited concept of creating a list of service addresses for a client node based on characteristics of that node. Freund merely teaches that access to the Internet may be controlled for individual users. The list of URL addresses that are included in the address rules are just those addresses that a particular user is allowed to access. Thus, those lists are specific to a particular user.

For the above reasons, Applicants respectfully submit that the final Office Action has mischaracterized the teachings of Freund in alleging that Freund teaches a list ordered specifically for a client node based on one or more characteristics of the client node. No ordering of a list is described by Freund, and to the extent that lists are described, Freund teaches that the lists are specific to a user application, and not to a client node *per se*. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the obviousness rejection to their independent claims based upon the teachings of Christensen and Freund.

Further, Applicants traverse the combinability of Christensen and Freund to the extent that the final Office Action alleges that the combination teaches Applicants' recited invention, and in particular, Applicants' characterization that the ordered lists of service addresses is ordered specifically for the client node based on one or more characteristics of the client node.

Without acquiescing to the rationale for combining the documents, Applicants note that if Freund is combined with Christensen as proposed, their recited invention still would not have been taught or suggested by the combination.

Freund does not discuss ordering of a list of service addresses *per se*, let alone the ordering of service addresses for a client node based on one or more characteristics of the client node. The list of URLs in Freund do not present or teach one skilled in the art an ordering mechanism, and the access rules of Freund do not result in any ordering of the list of URLs. Still further, there is no discussion or suggestion in Freund that the listed URLs is in any way dependent on a client node characteristic itself, rather than an identity of an application or user running on the node. Additionally, as noted above, Christensen is not even teaching Applicants' recited functionality of creating an ordered list of service addresses to be used by a client node of a computing environment to reach a service of a computing environment. The list in Christensen

is used at the service end of the network for balancing the load by the service provider, and does not meet the functionality recited by Applicants in the independent claims presented.

Thus, Applicants respectfully submit that the combination of Christensen and Freund would not teach one skilled in the art their functionality of creating an ordered list of services addresses to be used by a client node of a computing environment to reach a service node of the computing environment, wherein the ordered list of services is specifically ordered for the client node based on one or more characteristics of the client node.

Still further, upon a review of the applied patents, there is no teaching, suggestion or incentive for further modification of the combination as would be necessary to achieve Applicants' invention. The lists of addresses in Christensen do not comprise an ordered list of service addresses to be used by a client node to reach a service of a computing environment, and the URLs and access rules of Freund do not apply nor do they suggest the creation of such an ordered list of services which is based on one or more characteristics of the client node.

Yet further, the characterizations of the teachings of Freund provided in the final Office Action provide no technical basis outside that contained in Applicants' own specification. The characterizations of the teachings of Freund in particular merely assert the language of Applicants' claimed invention in hindsight. Thus, the rejection violates the well known principle that Applicants' own disclosure cannot be used as a reference against them.

The consistent criterion for the determination of obviousness is whether the art would have suggested to one of ordinary skill in the art that the claimed invention should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. The suggestion and the expectation of success must be found in the prior art, not in the Applicants' disclosure. In re Dow Chemical Company, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1998) (multiple citations omitted). The alleged combination at issue simply is characterized in the language of Applicants' own disclosure, rather than an identified basis in the prior art for achieving the modifications necessary to arrive at Applicants' claimed invention, in violation of this well known principle. This is yet another, independent reason why the current invention is not obvious over the applied art.

In summary, Applicants traverse the rejection of the independent claims based on the misinterpretation of the Christensen and Freund patents; the lack of a teaching or a suggestion of their invention in the combination; the lack of an actual teaching, suggestion or incentive in the art for the modifications necessary to achieve their invention; and the use of Applicants' own disclosure and results as a basis for the alleged modifications.

There is no discussion in Christensen or Freund of an ordered list of service addresses to be used by a client node, wherein the ordered list of service addresses is ordered specifically for the client node based on one or more characteristics of the client node.

For all of the above reasons, Applicants respectfully submit that the independent claims patentably distinguish over the teachings of Christensen and Freund. Reconsideration and withdrawal of the obviousness rejection based thereon is therefore respectfully requested.

The dependent claims are allowable for the same reasons as the independent claims, as well as for their own additional features. For example, claim 4 specifically indicates that the ordering criteria comprises distance from the client node to a plurality of servers corresponding to the plurality of service addresses. Since it is admitted in the Office Action that Christensen fails to teach or suggest creating an ordered list of service addresses wherein the ordered list is ordered specifically for the client node based on one or more characteristics of the client node, it follows that Christensen also fails to teach or suggest that the ordering criterion comprises distance from a client node to a plurality of servers.

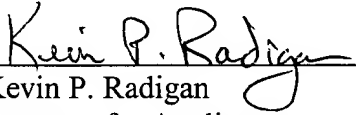
Support for the rejection of this claim is indicated at column 5, lines 44-48, column 11, lines 38-40, and column 3, lines 8-11 of Christensen (see page 13, paragraph 7 of final Office Action). However, Applicants respectfully submit that these cited lines of Christensen relate to a load rating which is a measure of the PCC service resource source consumption, such as the amount of traffic at the website 180. There is no teaching or suggestion in the cited lines of Christensen that the characteristic of the client node upon which an ordered list of services is created is a distance from the client node to a plurality of servers. The load rating in Christensen simply refers to the processing load at the service end.

Based on the foregoing, Applicants respectfully submit that dependent claim 4, as well as the other similar dependent claims, are patentable over the combination of Christensen and Freund.

For at least the above reasons, Applicants respectfully submit that all claims are in condition for allowance and such action is respectfully requested.

If a telephone conference would be of assistance in advancing prosecution of the subject application, Applicants' undersigned attorney invites the Examiner to telephone him at the number provided.

Respectfully submitted,


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